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PCT09

## RAW SEQUENCE LISTING

DATE: 01/19/2002

PATENT APPLICATION: US/09/700,712

TIME: 11:55:42

Input Set : A:\29772SEQL.txt.txt

Output Set: N:\CRF3\01182002\I700712.raw

**ENTERED**

09004121400260

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4 <110> APPLICANT: SBL Vaccin AB
6 <120> TITLE OF INVENTION: Method of producing thy A- strains of Vibrio cholerae,
7     such strains and their use.
9 <130> FILE REFERENCE: 29772
11 <140> CURRENT APPLICATION NUMBER: US 09/700,712
C--> 12 <141> CURRENT FILING DATE: 2001-11-13
14 <150> PRIOR APPLICATION NUMBER: SE 9801852-6
15 <151> PRIOR FILING DATE: 1998-05-26
17 <160> NUMBER OF SEQ ID NOS: 5
19 <170> SOFTWARE: PatentIn Ver. 2.1
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23 <212> TYPE: DNA
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29 tgctatgtgg ttggccaatc gccgagcgga tcgcgcgggc agtggttggg cgcgtgagca 180
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40 ttgggtcttac aagcgcggtt tgtatcaaga ccgtgtagca gcaaaatagg gtagttaggt 840
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52 catttaccaa gatcaactcg aattgatgcg cgatgtgcag ctaaaacgtg agccattccc 1560
53 agcgccctcag ttccatatca atccaaagat taaaacactg caggatttgg aaacttgggt 1620
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57 aatgctgccg gggatgacga caaacacacc caataagtaa ctcaccacca ccattttgct 1860
58 cttacaagcc caagttgaga tgagctcagc acctttaata ggcagttcgc gtaagaaagg 1920
59 aataccgtaa atcaagaccg tagccatcaa gttaaagctt aagtgcacca gcgcaatttg 1980
60 cagagcaaac acggcaaact caccagagac agcggttgcg gcgagcagag cagtaataca 2040
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63 cactgtacct gaagcaatac cgtgtagtgg gcctcggcca atcgcatttt gtagaatttc 2220
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68 taaaatgcca aacatcattt cttagaggtg gaagatcagc accgcgagaa gattgaaaaa 2520
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72 tgaggattga atcagtgcgg ttgccactaa accaatcadc aatcctgcaa ttgggtggga 2760
73 agcaaattca aatagaactt tggcttgatc gccggttgcc catttaaaac cgctgccgac 2820
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86 tgcgatgtgg ttggccaatc gccgagcggg tcgcgcgggg agtggttggg cgcgtgagca 180
87 agtctctgac ttgttattcg ccggcttttt aggtgtagtg atcgggtggc gagttggtta 240
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92 aacggatgtg ctttgggctt ttgtattccc taatggtggc ccaactgcgc gccatccttc 540
93 acagctttat gaattcgctt tagaaggcgt ggttctgttc tttattctta attggtttat 600
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95 ccgcttcctt gtggaatacg tccgtgagcc agatgctcag ttgggtctgt ttggtggctt 720
96 catttcaatg gggcaaatcc tctccttacc tatggtgatc atcggtatct tgatgatggt 780
97 ttggtcttac aagcgcgggt tgtatcaaga ccgtgtagca gcaaaatagg gtagttag 838
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108 ccggggatga cgacaaacac acccaataag taactcacca ccaccatttt gctcttaca 180
109 gcccaagttg agatgagctc agcaacctta ataggcagtt cgcgtaagaa aggaataccg 240

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112 atgttcgcac ctaaggtaaa tgggtagatt tcacgcactt tcagcacgcc agagcccacg 420
113 agaggaacca ttaggctggt tgtggtcgat gaagattgaa ctaataccgt aaccactgta 480
114 cctgaagcaa tacggtgtag tgggcctcgg ccaatcgcat tttgtagaat ttcacgtgcg 540
115 cggccaacca tcaaactctt catcagtttg cccatcaccg taatggcgac gaaaatggtc 600
116 gcaataccca atacgataag tgcgacacca ccgaaagtat taccgaatac cgaaagctgg 660
117 gtttcaagcc ctgtgatgac aggtttggtg atcggtttga taaaatcaaa acctttcatg 720
118 ctcatatcgc cagtcgcaag cagaggcgaa acgagccagt gtgagacttt ctctaaaatg 780
119 ccaaacatca tttctagagg taggaagatc agcaccgcga gaagattgaa aaaatcgtgg 840
120 atggtggcac tggcgaaagc acggcgaaac tcttctttac agcgcatatg gccaaaggctg 900
121 acgagagtat tggtcacagt agtaccaata ttggcaccca tcaccatagg aatcgcggtt 960
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139 20 25 30
141 Ala Asp Leu Thr Tyr Asp Val Gly Asn Asn Gln Phe Pro Leu Val Thr
142 35 40 45
144 Thr Arg Lys Ser Phe Trp Lys Ala Ala Val Ala Glu Leu Leu Gly Tyr
145 50 55 60
147 Ile Arg Gly Tyr Asp Asn Ala Ala Asp Phe Arg Gln Leu Gly Thr Lys
148 65 70 75 80
150 Thr Trp Asp Ala Asn Ala Asn Leu Asn Gln Ala Trp Leu Asn Asn Pro
151 85 90 95
153 Tyr Arg Lys Gly Glu Asp Asp Met Gly Arg Val Tyr Gly Val Gln Gly
154 100 105 110
156 Arg Ala Trp Ala Lys Pro Asp Gly Gly His Ile Asp Gln Leu Lys Lys
157 115 120 125
159 Ile Val Asp Asp Leu Ser Arg Gly Val Asp Asp Arg Gly Glu Ile Leu
160 130 135 140
162 Asn Phe Tyr Asn Pro Gly Glu Phe His Met Gly Cys Leu Arg Pro Cys
163 145 150 155 160
165 Met Tyr Ser His His Phe Ser Leu Leu Gly Asp Thr Leu Tyr Leu Asn
166 165 170 175
168 Ser Thr Gln Arg Ser Cys Asp Val Pro Leu Gly Leu Asn Phe Asn Met
169 180 185 190
171 Val Gln Val Tyr Val Phe Leu Ala Leu Met Ala Gln Ile Thr Gly Lys
172 195 200 205
174 Lys Pro Gly Leu Ala Tyr His Lys Ile Val Asn Ala His Ile Tyr Gln

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0900712.460

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 178 225                                230                                235                                240  
 180 Pro Ala Pro Gln Phe His Ile Asn Pro Lys Ile Lys Thr Leu Gln Asp  
 181                                245                                250                                255  
 183 Leu Glu Thr Trp Val Thr Leu Asp Asp Phe Asp Val Thr Gly Tyr Gln  
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 201                                20                                25                                30  
 203 Gly Phe Leu Phe Ala Met Trp Leu Ala Asn Arg Arg Ala Asp Arg Ala  
 204                                35                                40                                45  
 206 Gly Ser Gly Trp Thr Arg Glu Gln Val Ser Asp Leu Leu Phe Ala Gly  
 207                                50                                55                                60  
 209 Phe Leu Gly Val Val Ile Gly Gly Arg Val Gly Tyr Val Ile Phe Tyr  
 210 65                                70                                75                                80  
 212 Asn Phe Asp Leu Phe Leu Ala Asp Pro Leu Tyr Leu Phe Lys Val Trp  
 213                                85                                90                                95  
 215 Thr Gly Gly Met Ser Phe His Gly Gly Leu Leu Gly Val Ile Thr Ala  
 216                                100                                105                                110  
 218 Met Phe Trp Tyr Ala Arg Lys Asn Gln Arg Thr Phe Phe Gly Val Ala  
 219                                115                                120                                125  
 221 Asp Phe Val Ala Pro Leu Val Pro Phe Gly Leu Gly Met Gly Arg Ile  
 222                                130                                135                                140  
 224 Gly Asn Phe Met Asn Ser Glu Leu Trp Gly Arg Val Thr Asp Val Pro  
 225 145                                150                                155                                160  
 227 Trp Ala Phe Val Phe Pro Asn Gly Gly Pro Leu Pro Arg His Pro Ser  
 228                                165                                170                                175  
 230 Gln Leu Tyr Glu Phe Ala Leu Glu Gly Val Val Leu Phe Phe Ile Leu  
 231                                180                                185                                190  
 233 Asn Trp Phe Ile Gly Lys Pro Arg Pro Leu Gly Ser Val Ser Gly Leu  
 234                                195                                200                                205  
 236 Phe Leu Ala Gly Tyr Gly Thr Phe Arg Phe Leu Val Glu Tyr Val Arg  
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 242 Gln Ile Leu Ser Leu Pro Met Val Ile Ile Gly Ile Leu Met Met Val  
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/700,712

DATE: 01/19/2002

TIME: 11:55:43

Input Set : A:\29772SEQL.txt.txt

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

09700712.41301  
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